INDEX TO VOLUME 17—1982

Index to Authors and Contributors

AL-FADDAGH, K. D. *Paper* Steady-state stress distributions in circumferentially notched bars subjected to creep, 123

BEAUCHAMP, D. J. *Paper* A rig for controlled cyclic strain and temperature testing, 45
BLENKIN, R. *Paper* The design and manufacture of supports for horizontal vessels, 139
BULL, J. W. *Paper* Stresses around large circular holes in uniform circular cylindrical shells, 9

CARMICHAEL, J. *Paper* Stresses in horizontal storage vessels—a comparison of theory and experiment, 169
CHONA, R. *Paper* Two and three parameter representation of crack-tip stress fields, 79
CHOW, C. L. *Paper* Method of fracture toughness determination in sidewall of a pneumatic tyre, 67
CHOW, F. Y. *Paper* Araldite models for the study of elastic stability in plates, 113
CHU, E. *Paper* Determination of large strains in metal forming, 95

DECOCK, J. *Communication*, 203
DE KONING, A. U. *Paper* Recommendations for the measurement of *R*-curves using centre cracked panels, 205
DE OLIVEIRA, J. G. *Paper* Crushing analysis of rotationally symmetric plastic shells, 229
DUNCAN, J. L. *Paper* Determination of large strains in metal forming, 95
DUTHIE, G. *Papers* An analysis for cylindrical vessels under local loading—application to saddle supported vessel problems, 157. Stresses in horizontal storage vessels—a comparison of theory and experiment, 169

EASTABROOK, J. N. *Paper* Recommendations for the measurement of *R*-curves using centre cracked panels, 205
EISSA, M. *Papers* Elastic stresses due to torque transmitted through the prismatic part of keyed connections. Part I: effect of different fits and friction on standard shapes, 103; Part II: effect of shape with usual fits and friction, 215
ELLISON, E. G. *Paper* A rig for controlled cyclic strain and temperature testing, 45

FENNER, R. T. *Paper* Steady-state stress distributions in circumferentially notched bars subjected to creep, 123
FESSLER, H. *Papers* A rig for creep and thermal ratchet testing of lead alloy models, 13. Elastic stresses due to torque transmitted through the prismatic part of keyed connections. Part I: effect of different fits and friction on standard shapes, 103; Part II: effect of shape with usual fits and friction, 215. Stress concentration on axially loaded, unsymmetrical projections on flat bars, 23. Thermal ratchetting of axially loaded tubes operating in the creep range, 243

GDOUTOS, E. E. *Paper* Fracture of aluminium-epoxy layered composites containing cracks, 75
GREATOREX, C. B. *Paper* The stresses induced in reinforced plastic matrix pipes by saddle supports, 147

HIGHTON, J. *Paper* End reinforcements and grips for anisotropic tubes, 31
HOLLAND, M. *Paper* Pressurized non-circular member—effect of meanline form, 237
HOLT, P. J. *Paper* Exact solutions to some honeycomb sandwich beam, plate, and shell problems, 1
HYDE, T. H. *Papers* A rig for creep and thermal ratchet testing of lead alloy models, 13. Experimental thermal ratchetting data for a component with a stress concentration, 253. Predicting the thermal ratchetting and creep behaviour of a component with a stress concentration, 263. Thermal ratchetting of axially loaded tubes operating in the creep range, 243.

IRWIN, G. R. *Paper* Two and three parameter representations of crack-tip stress fields, 79

JONES, N. *Paper* Plastic collapse loads of cylindrical pressure vessels supported by rigid saddles, 187

KURUPPU, M. D. *Paper* Determination of fracture toughness of ductile materials using a reinforced double cantilever beam specimen, 223

MABELSON, A. R. *Paper* A three-dimensional photoelastic study of the stresses in horizontal, saddle-supported, liquid-filled storage vessels, 177
MARCHANT, M. J. *Paper* Determination of the flexural thickness of thin plates from small deflection measurements using optical holography, 53

NARAYANAN, R. *Paper* Araldite models for the study of elastic stability in plates, 113

RAMAMURTI, V. *Paper* Stress analysis of axial flow cooling fans, 87
ROOKE, D. P. *Paper* Recommendations for the measurement of *R*-curves using centre cracked panels, 205

SCHWALBE, K.-H. *Paper* Recommendations for the measurement of *R*-curves using centre cracked panels, 205
SETZ, W. *Paper* Recommendations for the measurement of *R*-curves using centre cracked panels, 205
SHANMUGAVEL, T. *Paper* Stress analysis of axial flow cooling fans, 87
SHUKLA, A. *Paper* Two and three parameter representations of crack-tip stress fields, 79
SNELL, M. B. *Paper* Determination of the flexural thickness of thin plates from small deflection measurements using optical holography, 53
SODEN, P. D. W. *Paper* End reinforcements and grips for anisotropic tubes, 31
SOWERBY, R. *Paper* Determination of large strains in metal forming, 95
STANLEY, P. *Paper* A three-dimensional photoelastic study of the stresses in horizontal, saddle-supported, liquid-filled storage vessels, 177

TAKEUTI, Y. *Paper* A new technique for coupled plane thermal stress problems, 133
TANIGAWA, Y. *Paper* A new technique for coupled plane thermal stress problems, 133
TOOTH, A. S. *Papers* An analysis for cylindrical vessels under local loading—application to saddle supported vessel problems, 157. Plastic collapse loads of cylindrical pressure vessels supported by rigid saddles, 187. Stresses in horizontal storage vessels—a comparison of theory and experiment, 169. The stresses induced in reinforced plastic matrix pipes by saddle supports, 147

WEBBER, J. P. H. *Paper* Exact solutions to some honeycomb sandwich beam, plate, and shell problems, 1
WEBSTER, G. A. *Paper* Steady-state stress distributions in circumferentially notched bars subjected to creep, 123
WEBSTER, J. J. *Papers* A rig for creep and thermal ratchet testing of lead alloy models, 13. Experimental thermal ratchetting data for a component with a stress concentration, 253. Predicting the thermal ratchetting and creep behaviour of a component with a stress concentration, 263. Thermal ratchetting of axially loaded tubes operating in the creep range, 243
WHEELER, C. *Paper* Recommendations for the measurement of *R*-curves using centre cracked panels, 205
WHITE, G. C. *Paper* An analysis for cylindrical vessels under local loading—application to saddle supported vessel problems, 157. Stresses in horizontal storage vessels—a comparison of theory and experiment, 169
WIERZBICKI, T. *Paper* Crushing analysis of rotationally symmetric plastic shells, 229
WOO, C. W. *Paper* Determination of fracture toughness of ductile materials using a reinforced double cantilever beam specimen, 223
WOODS, P. J. *Paper* Stress concentrations on axially loaded unsymmetrical projections on flat bars, 23

Subject Index

ANALYSIS FOR CYLINDRICAL VESSELS UNDER LOCAL LOADING—APPLICATION TO SADDLE SUPPORTED VESSEL PROBLEMS, *Paper*, 157
Anisotropic tubes, end reinforcement and grips for, 31
ARALDITE MODELS FOR THE STUDY OF ELASTIC STABILITY OF PLATES, *Paper*, 113
Axial flow cooling fans, stress analysis of, 87
Axially loaded tubes, 243, 253

Calculating stresses due to radial loads and moments applied to branches in cylindrical pressure vessels, *Communication*, 203
Centre-cracked panels for the measurement of *R*-curves, 205
Composites, layered, fracture behaviour of, 75
Cooling fans, stress analysis of axial flow, 87
Coupled plane thermal stress problems, 133
Crack tip stress fields, 79
Creep and thermal ratchet testing of lead alloy models, 13
CRUSHING ANALYSIS OF ROTATIONALLY SYMMETRIC PLASTIC SHELLS, *Paper*, 229
Cylindrical pressure vessels, 187, 203
Cylindrical shells, circular, stresses around large circular holes, 9
Cylindrical vessels subjected to local loading, 157

DESIGN AND MANUFACTURE OF SUPPORTS FOR HORIZONTAL VESSELS, *Paper*, 139
DETERMINATION OF FRACTURE TOUGHNESS OF DUCTILE MATERIALS USING RDCB SPECIMEN, *Paper*, 223
DETERMINATION OF LARGE STRAINS IN METAL FORMING, *Paper*, 95
DETERMINATION OF THE FLEXURAL THICKNESS OF THIN PLATES FROM SMALL DEFLECTION MEASUREMENTS USING OPTICAL HOLOGRAPHY, *Paper*, 53

Elastic stability of plates, 113
ELASTIC STRESSES DUE TO TORQUE TRANSMITTED THROUGH THE PRISMATIC PART OF KEYED CONNECTIONS. Part I: effect of different fits and friction on standard shapes, *Paper* 103. Part II: effect of shape with usual fits and friction, *Paper* 215
END REINFORCEMENTS AND GRIPS FOR ANISOTROPIC TUBES, *Paper*, 31
EXACT SOLUTIONS TO SOME HONEYCOMB SANDWICH BEAM, PLATE, AND SHELL PROBLEMS, *Paper*, 1
EXPERIMENTAL THERMAL RATCHETTING DATA FOR A COMPONENT WITH A STRESS CONCENTRATION, *Paper*, 253

Fans, cooling, stress analysis of axial flow, 87
Flat bars, stress concentrations on projection on, 23
Flexural stiffness of thin plates, 53
FRACTURE OF ALUMINUM-EPOXY LAYERED COMPOSITES CONTAINING CRACKS, *Paper*, 75
Fracture toughness determination in sidewall of a pneumatic tyre, 67

Honeycomb sandwich beam, plate, and shell problems, 1
Horizontal vessels, stresses in, 169, 177
Horizontal vessels, supports for, 139

Layered composites, fracture behaviour of, 75
Lead alloy models, rig for creep and thermal ratchet testing of, 13

Mean-line form, effect of, 237
Measurement of *R*-curves using centre-cracked panels, 205
Metalforming, determination of large strains in, 95
METHOD OF FRACTURE TOUGHNESS DETERMINATION IN SIDEWALL OF A PNEUMATIC TYRE, *Paper*, 67

NEW TECHNIQUE FOR COUPLED PLANE THERMAL STRESS PROBLEMS, *Paper*, 133
Notched bars, steady-state stress distributions in, 123

Optical holography, measurement of fringes in, 53

Photoelastic models, analysis of, 103
Photoelastic test results for peak stresses, 215
Pipes, reinforced plastic matrix, 147
Plane thermal stress problems, 133
PLASTIC COLLAPSE LOADS OF CYLINDRICAL PRESSURE VESSELS SUPPORTED BY RIGID SADDLES, *Paper*, 187
Plastic shells, crushing analysis of rotationally symmetric, 229
Plates, elastic stability of, 113
Plates, thin, flexural stiffness of, 53
Pneumatic tyre, fracture toughness determination in sidewall of, 67
PREDICTING THE THERMAL RATCHETTING AND CREEP BEHAVIOUR OF A COMPONENT WITH A STRESS CONCENTRATION, *Paper*, 263
PRESSURIZED NON-CIRCULAR MEMBER—EFFECT OF MEAN LINE FORM, *Paper*, 237

R-curve testing, 205
Radiator cooling fans, stresses on, 87
Ratchetting and creep behaviour, finite element predictions of. 243, 263
RECOMMENDATIONS FOR THE MEASUREMENT OF *R*-CURVES USING CENTRE CRACKED PANELS, *Paper*, 205
Reinforced double cantilever beam specimen, 223
RIG FOR CONTROLLED CYCLIC STRAIN AND TEMPERATURE TESTING, *Paper*, 45
RIG FOR CREEP AND THERMAL RATCHET TESTING OF LEAD ALLOY MODELS, *Paper*, 13

Saddle supports, 139, 147, 157
Shells, plastic, rotationally symmetric, 229
STEADY-STATE STRESS DISTRIBUTIONS IN CIRCUMFERENTIALLY NOTCHED BARS SUBJECTED TO CREEP, *Paper*, 123
Storage vessels, horizontal, 169, 177
Storage vessels, plastic collapse of, 187
Strain, 'pure homogeneous' and 'homogeneous', 95
STRESS ANALYSIS OF AXIAL FLOW COOLING FANS, *Paper*, 87
STRESS CONCENTRATIONS ON AXIALLY LOADED, UNSYMMETRICAL PROJECTIONS ON FLAT BARS, *Paper*, 23
Stress distributions in circumferentially notched bars, 123
Stress fields, crack tip, 79
STRESSES AROUND LARGE CIRCULAR HOLES IN UNIFORM CYLINDRICAL SHELLS, *Paper*, 9
Stresses due to torque transmitted through keyed connections, 103, 215
Stresses in horizontal, saddle-supported, liquid-filled storage vessels, 177
STRESSES IN HORIZONTAL STORAGE VESSELS—A COMPARISON OF THEORY AND EXPERIMENT, *Paper*, 169
STRESSES INDUCED IN REINFORCED PLASTIC MATRIX PIPES BY SADDLE SUPPORTS, *Paper*, 147
SUPPORTS AND SADDLES FOR HORIZONTAL STORAGE AND PRESSURE VESSELS, *Papers*, 139–202

THERMAL RATCHETTING OF AXIALLY LOADED TUBES OPERATING IN THE CREEP RANGE, *Paper*, 243
Thermal ratchetting data, 243, 253, 263
Thin plates, flexural stiffness of, 53
THREE-DIMENSIONAL PHOTOELASTIC STUDY OF THE STRESSES IN HORIZONTAL, SADDLE-SUPPORTED, LIQUID-FILLED STORAGE VESSELS, *Paper*, 177
TWO AND THREE PARAMETER REPRESENTATIONS OF CRACK-TIP STRESS FIELDS, *Paper*, 79
Tyre, pneumatic, fracture toughness determination in sidewall of, 67